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and finally $\delta a = -2{\cdot}0\,n$; $\delta b = -12{\cdot}6\,n$. Let $n = 7$ then $\delta a = -14$; $\delta b = -88$. Applying these alterations to the values found for a and b, there result,

$$a = 20926350$$
$$b = 20855252$$
$$a : b = 294{\cdot}33 : 293{\cdot}33$$

These semiaxes exceed those given at p. 771 of the *Account*, &c., by 2 and 19 feet respectively. We have, therefore, this interesting result, that the very slight modification in the elements of the earth's figure and dimensions due to the arc at the Cape is entirely owing to the extraordinary disturbance of the vertical line at Kamies Berg.

On the Development of the Disturbing Function in the Lunar Theory. By A. Cayley, Esq.

The development of the disturbing function for the lunar theory is effected in a very elegant manner in Hansen's *Fundamenta Nova*, but a further step is requisite to exhibit the result in a perfectly explicit form and to compare it with those of other geometers. To do this is the immediate object of the present memoir, the mode of development being a reproduction of that made use of by Hansen. The results are compared with those obtained by Lubbock and Pontécoulant. But the memoir is written with a view to the development and application to the lunar theory of the theory contained in the author's "Memoir on the Problem of disturbed Elliptic Motion," and the notation is consequently that of the memoir just referred to.

The solar eclipse of Sept. 7, 1858, was observed at the Isle of St. Croix, Danish West Indies, by Major Lang. The last contact occurred at 21^{h} 9^{m} 18^{s} local mean time. The sky was free of clouds, but the direct heat of the sun's rays, about 130°, was almost insurmountable. No appearance of Baily's beads nor any other remarkable phenomenon. The atmosphere pure and clear. A very large spot with an extensive cluster on the sun's south-west quadrant, the whole length of which the day before was computed to be about 75,000 English miles.

The following note is by Mr. Williams, the Assistant-Secretary of the Society:—

"This morning, about twenty-five minutes past eleven, chancing to look at the sun, which was at that time greatly obscured by a fog, I distinctly saw without optical assistance

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what appeared to be two spots very near each other, a little below the equator of the sun towards the west. Upon applying the telescope my conjecture was verified, two large spots appearing in that place and another above the equator towards the east. This last I was unable to perceive without the telescope. There were also five or six smaller spots visible in the instrument.

"*Nov.* 10, 1858."

Note on the Nomenclature of the Minor Planets.

By J. R. Hind, Esq.

A few months since my attention was directed by Sir John Herschel to the inconvenience and confusion which are being gradually introduced into the nomenclature of the minor planets by the acceptance of names, easily mistaken either in speaking or writing for others belonging to planets previously discovered. I have been fully sensible of the liability to error or misapprehension thereby induced, and am desirous of recording a protest against any further continuance of what must eventually become a positive nuisance to those who are more particularly occupied with the observations and calculations bearing upon this numerous group of planets.

Thus we have already:—

Thetis, Themis; Lutetia, Lætitia; Iris, Isis; Vesta, Hestia; Pallas, Pales.

It will naturally be the wish of every discoverer of a planet that his *enfant trouvé* should be known to posterity by the name which it has borne during his lifetime; but if the practice to which allusion is here made be suffered to continue much longer, there is certainly a probability that a day will arrive when, for the sake of their general convenience, astronomers will consign these troublesome names to oblivion, and substitute others less liable to engender confusion. This consideration alone, we might suppose, would prove sufficiently powerful to induce hesitation on the part of the discoverer before accepting any name likely to be objected to on the score of similarity with that of a planet previously found.

Nov. 11, 1858.

Letter addressed to the Secretary by Sir J. F. W. Herschel. Read and published by his request.

"In the fourth edition of my *Outlines of Astronomy*, p. 337, in which the discovery of *Hyperion* (*Saturn's* eighth satellite) is mentioned as there recent, the discovery is attributed to Mr. Dawes and Professor Bond, without any mention of Mr. Lassell,

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